BEFORE THE
FEDERAL COMMUNICATIONS COMMISSION
WASHINGTON, D.C. 20554

In the Matter of	)	
	)	
Local Exchange Carrier Line Information Database	)	CC Docket 92-24
	)	

TO THE COMMISSION

Company Direct Case

SOUTHWESTERN BELL TELEPHONE COMPANY

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April 21, 1992

SUMMARY*

SWBT has adequately described its LIDB validation service in its tariff. SWBT has also adequately described its procedures for Data Base updates, its liabilities, and its responsibilities, with appropriate reference to technical publications. SWBT has adequately described the process used to handle system congestion--"code gapping."

SWBT has adequately described and referenced technical publications and the technical parameters required for the CCS interconnection link. Technical references and SWBT's supplements to these references are the standard method to make technical information generally available, as opposed to making a tariff a technical document.

SWBT has identified rate elements with costs that are investment related where CCSIS was not used in the cost development process. Two are associated with LIDB--LIDB Validation Query and LIDB Query Transport. The other elements are associated with CCS/SS7 Interconnection Services--STP Access Mileage and STP Access connection.

The remaining rate elements proposed in the LIDB filing are based on one time nonrecurring charges.

There are two sets of factors used to develop annual costs which represent the cost of doing business in one year. The first set, referred to as annual capital costs, includes

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* All abbreviations used herein are referenced within the text.

depreciation, cost of money and income tax factors. SWBT employs the CAPCOSTS2 model in developing these factors.

Specific annual cost factors, dollar amounts and Part 32 accounts are listed herein.

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Southwestern Bell Telephone Company Direct Case

Southwestern Bell Telephone Company (SWBT) files its Direct Case in response to the following questions propounded by the Commission.

I. HAVE THE LECS ADEQUATELY DESCRIBED THE LIDB QUERY SERVICE IN THE TARIFFS?

SWBT has adequately described its LIDB Validation Service in its tariff. SWBT's LIDB validation service is a new service offering that supports Alternate Billing Services (ABS). ABS assists end users in billing calls to an account not necessarily associated with the originating line. LIDB Validation Service is designed to assist local exchange carrier (LEC) and interexchange carrier (IXC) customers of SWBT with potential toll fraud detection. These customer benefits will be achieved by the validation of calling card and toll billing exception data, and the determination of whether the end user is attempting to bill a call to a public (including those classified as semi-public) or nonworking telephone number.

SWBT has also adequately described its procedures for data base updates, its liabilities, and its responsibilities, with appropriate reference to technical publications. Because these procedures are evolving and subject to change, it is inappropriate for SWBT to detail day-to-day operations in its tariff. Tariff publication of SWBT's procedures for detecting fraud could

compromise those procedures.

The service provided by SWBT is validation of billing information, not a guarantee of revenue collection. The primary purposes of allowing access to billing information residing in the LIDB is to assist ICs in making their ultimate decision whether to extend credit to the caller. SWBT has procedures in place to maintain a high level of accuracy of the billing information in its LIDB. These procedures include service-order-initiated daily updates, routine audits and 24-hour emergency update capability for cases such as lost or stolen cards.

As described in its tariff, on a daily basis, SWBT will add, delete, and modify customer accounts as customers move, become delinquent on their bills, or order new services. SWBT will also monitor calling card validation and take timely steps to generate high-usage reports and possibly deactivate cards suspected of fraudulent use. Calling cards identified or suspected of being fraudulently used are updated 7 days a week, 24 hours a day. SWBT has made available to ICs contacts and telephone numbers on a 24 hour basis, 7 days a week, to report suspicious calling card activity. Threshold levels are derived from historical data and input from affected stakeholders (i.e., IXCs or other LECs). SWBT has discussed, and will continue to discuss, these <u>administrative</u> activities with its LIDB Validation Service customers.

In its reply to the three parties opposing its tariff, SWBT described the technical parameters for processing data base queries, as well as "code gapping," also known as "call gapping." The LIDB performance objectives, including the standard response

time for an individual LIDB query, are contained in technical reference FR-NWT-000271. This document is also known as the OSSGR (Operator Services Systems Generic Requirements).

The OSSGR is a Bellcore publication, developed from industry input, which defines operator services call handling needs, including switch requirements. The OSSGR is a comprehensive compilation of requirements and objectives that, in Bellcore's view, meet typical operator call handling needs. The OSSGR, including LIDB specifications, was initially released by Bellcore in December, 1985. The OSSGR is updated as needed to keep the industry informed of changes to requirements, with revisions having been released in September, 1986; December, 1986; March, 1988; January, 1990; February, 1991; and January, 1992.

LIDB down-time is required to be less than 12 hours per year. With the current configurations, LIDB can handle up to 100 queries per second. The mean response time for a query, from switch transmission to reception, is to be no greater than 500 milliseconds and should not exceed one second for 99 percent of all queries. SWBT's tests with and results from interconnection with other LIDB owners have resulted in average query response times of less than one second.

When the LIDB experiences abnormal query volumes, it adjusts its processing priorities. The LIDB initially suspends low priority inputs from its supporting administrative systems. If this step does not correct the processing overload, the LIDB then suspends all input from its administrative systems except for emergency needs. If this action fails to correct the situation,

the LIDB then moves to higher levels of congestion control by imposing "code gapping."

"Code gapping" (or incorrectly, "call gapping") is a process used to handle system congestion. Every response, during an overload condition, returned by LIDB to the switches which originate queries contains an Automatic Code Gapping (ACG) component. The ACG component contains a gap and duration index. The gap index tells the switch how long the switch should wait before sending another query to the LIDB. The duration index tells the switch how long it should continue to perform gapping. Code gapping begins at overload level 3.1, the next level beyond that described above. At overload level 4, the LIDB begins dropping one out of three of the queries received and at level 5, two out of three of the queries received are dropped. At overload level 6, the LIDB discontinues processing of queries by sending an out-of-service message to its supporting STPs. During an overload condition (level 3.1) all query responses contain the ACG component. These procedures are applied uniformly to all users of SWBT's LIDB. These procedures were presented to the Industry Carriers Compatibility Forum (ICCF) in November, 1990, by Bellcore on behalf of its client companies.

II. SHOULD THE TARIFFS CONTAIN ADDITIONAL DETAIL REGARDING THE TECHNICAL PARAMETERS FOR THE CCS INTERCONNECTION LINK?

SWBT has adequately described and referenced technical publications and the technical parameters required for the CCS interconnection link. Technical references and SWBT supplements to these references are the standard method to make technical

information generally available, as opposed to making the tariff a technical document. A waiver of Section 61.74 of the Commission's Rules was requested and granted under Special Permission No. 91-313 specifically to allow reference to technical publications for proposed service offerings.

III. ARE THE RATES ESTABLISHED IN THE TARIFFS EXCESSIVE?

> (1) Bell Communications Research, Inc., has developed a cost model called "Common Channel Signalling Cost Information System (CCSCIS). Any carrier who relied on CCSCIS to develop its rates must explain why use of such a model is appropriate for common channel signalling services.

SWBT used the CCSCIS model to develop investment data for the STP Port Termination rate element. The CCSCIS model is an engineering based, bottom up cost calculator supported by equipment manufacturers and maintained by Bellcore. It is appropriate for use in calculating the costs for the STP Port Termination rate element because it is engineering oriented and uses a well known economic theory to produce individual costs of technology specific CCS network functions. It assigns the costs of shared CCS equipment to individual services using a methodology to assure that each service is assigned equal costs for equal use of resources.

> (2) Those carriers who did not use CCSCIS to allocate investment should fully explain how they identified the plant used to provide LIDB service.

In response to this question, SWBT has identified the following rate elements with costs that are investment related where CCSIS was not used in the cost development process. Two are associated with LIDB - LIDB Validation Query and LIDB Query

Transport. The other elements which recover access mileage are associated with CCS/SS7 Interconnection Service. SWBT has broken the access mileage into two components - STP Access Mileage and STP Access Connection.

The investment associated with the LIDB Validation Query charge consists of the Service Control Point (SCP) and the Data Base Administration System (DBAS) also referenced in the original filing Transmittal No. 2149 as the Administrative System (AS). The LIDB Query Transport charge considers the investment required to transport the LIDB query from the Signal Transfer Point (STP) to the SCP and back, as well as the STP investment.

SWBT's Network Operations Group identified the applicable LIDB investment for the two STPs and SCP location in Kansas City, Missouri, which is the location of SWBT's LIDB. In addition, SWBT's Operator Services group provided the investment amount for the DBAS (AS).

The investment for the STP Access Mileage rate element, which includes both a fixed monthly rate and a per mile rate, represents the facilities between a designated telephone company hub and the STP Port. The investment for the STP Access Connection rate element, which includes a fixed monthly rate for the zero (0) mileage band, a fixed monthly rate for greater than zero (0) mileage band, and a per mile rate, represents the investment in a facility termination, a channel termination and a multiplexer.

As stated in Appendix A of Transmittal No. 1970, filed April 2, 1990 (1990 Annual Filing), the current investment was identified by SWBT's Network Organization.

> (3) All filing carriers should provide total investment underlying each of the four rate elements and identify the account established by Part of the commission's Rules, 47 C.F.R. Part 32, in which these investments are recorded.

Investment is an expenditure that is expected to yield a return on the principal amount expended. To provide service, expenditures are made for material, vendor labor and engineering, company labor and engineering, power equipment, land and building. These expenditures represent the investment in the service.

SWBT has identified the rate elements that are investment related. As stated previously, two of the rate elements are associated with LIDB and were proposed in Transmittal No. 2149 - LIDB Validation Query and LIDB Query Transport. The remaining rate elements proposed in the LIDB filing are based on one time nonrecurring charges.

The other investment based rate elements are associated with CCS/SS7 Interconnection Service - STP Port Termination, STP Access Mileage, and the STP Access Connection. (As stated previously, the access mileage was broken into two rate elements.) As submitted in SWBT's Transmittal No. 2148, the STP Port Termination had both a monthly and a nonrecurring charge; and the STP Access Mileage had a monthly fixed charge and a monthly per mile charge. The STP Access Connection, which was submitted in SWBT's Transmittal No. 2163, had a fixed monthly charge for STP Access Connections with zero (0) miles, a fixed monthly charge for STP Access Connections over zero (0) miles, a monthly per mile charge and a nonrecurring installation charge. Investment data for the CCS/SS7 Interconnection Service elements is provided by state,

as it was in Transmittals No. 2148 and 2163, because this service is available in each state in SWBT's region.

The investments and Part 32 accounts for each of the rate elements are:

1)	LIDB Validation Query	$7,171,140.20
	Part 32 Accounts:	2124, 2111, 2121
2)	LIDB Query Transport	$1,654,069.35
	Part 32 Accounts:	2124, 2111, 2121
3)	STP Port Termination	
	Arkansas	$ 16,335.47
	Kansas	$ 12,868.84
	Missouri	$ 10,525.91
	Oklahoma	$ 12,189.37
	Texas	$ 9,485,98
	Part 32 Accounts:	2212, 2111, 2121

4a)	STP Access Mileage	Fixed	Per Mile
	Arkansas	$ 418.40	$ 49.84
	Kansas	$ 428.66	$ 8.48
	Missouri	$ 415.80	$ 52.45
	Oklahoma	$ 429.95	$ 36.64
	Texas	$ 584.57	$ 18.48
	Part 32 Accounts:	2121, 2231, 2232, 2362, 2422 2423, 2441	

4b)	STP Access Connection	Fixed-0 Mile	Fixed >0 Mile
	Arkansas	$ 14,057.69	$ 16,488.42
	Kansas	$ 13,256.41	$ 15,574.24
	Missouri	$ 15,067.37	$ 17,698.48
	Oklahoma	$ 13,015.84	$ 16,602.69
	Texas	$ 15,495.38	$ 18,248.51

		Per Mile
	Arkansas	$429.81
	Kansas	$ 73.47
	Missouri	$464.62
	Oklahoma	$421.98
	Texas	$414.24
	Part 32 Accounts:	2121, 2231, 2232, 2362 2422, 2423, 2441

> (4) All filing carriers should identify and fully document all factors applied to the investment identified in response to the request for information above to develop the rates, cross referencing to ARMIS data where possible.

There are two sets of factors used to develop annual costs which represent the cost of doing business in one year. The first set, referred to as annual capital costs, includes depreciation, cost of money[1] and income tax factors. SWBT employs the CAPCOST2 model in developing these factors.

CAPCOST2 is a model used to calculate capital cost factors attributable to specific accounts. It develops the depreciation, cost of money and income tax factors by recognizing plant survivor characteristics and accelerated tax depreciation procedures as specified by the Internal Revenue Service (IRS) code.

Additionally, CAPCOST2 is used for all new service cost studies conducted by SWBT for all jurisdictions. Capital costs represent the yearly expenses generated as a result of a unit of plant being placed in service. CAPCOST2 utilizes various inputs to produce the yearly capital costs associated with the investment. An investment is the purchase of a company asset, usually repaid over a time period of more than one year. This time repayment is called capitalization, hence the repayment values that CAPCOST2

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[1]Cost of money (COM) should not be confused with Return on Investment (ROI). COM to the firm is the cost of attracting the necessary capital in the financial marketplace in order to place the new investment in service. Thus COM is a composite of SWBT's cost of debt and its cost of equity. ROI, on the other hand, is the company's targeted level of return (revenues less expenses) expressed relative to net investment.

produces equal the minimum revenue that must be generated from the product each year to repay the original cost of the asset plus related expenses.

The model calculates the annual capital costs associated with the investment and prints them on a year by year basis. The year by year results are then levelized[2] over the life of the investment. CAPCOST2 is used to produce results which are forward looking.[3]

The depreciation factor is a method of allocating the cost of an asset over the life of an asset for recovery purposes. Book depreciation is used to calculate depreciation expense for cost studies. The depreciation factor is applied to total investment and is developed as follows:

Book Depreciation Rate = (1-(GSP-CRP))/PSL

GSP - Gross Salvage Percentage

CRP - Cost of Removal Percentage

PSL = Projected Service Life

The cost of money factor represents the weighted annual cost to the firm of debt and equity capital invested in the business. It is the amount which must be earned to cover financial commitments to the company's bondholders (interest rate on bonds) and to meet shareholders' expectations (return on shareholders' investment). The cost of money factor is applied to total

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[2]Levelized amounts are derived by dividing the present worth of total capital costs by the average demand for each year.

[3]Forward looking costs ignore embedded or historical costs and only consider the currant and future costs of an action. These are the appropriate costs for economic decision making.

investment and is developed as follows:

Cost of Money = COM% * Net Investment Base

COM% = (DR * COD) + (ER * COE)

DR = Debt Ratio

COD = Cost of Debt(%)

ER = Equity Ratio

COE = Cost of Equity(%)

Net Investment Base = Gross plant investment less depreciation reserves and tax reserves (deferred taxes).

The income tax factor is used to develop the amount owed to federal and state government because the company has earned a return on its investments. The income tax expenses are developed using a ratio of federal and state income tax rates applied to the portion of income resulting from investment financed by equity. The income tax factor is applied to total investment and is developed as follows:

Income Tax Expense = T * Taxable Income

Where taxable income is based on IRS rules.

T = Tax Rate

The second set of factors, referred to as operating expense factors, includes maintenance, administration and ad valorem taxes. These factors are developed within SWBT.

The maintenance factor includes the cost of material and direct labor, with associated social security and relief pensions on the labor, for repairs to and/or rearrangements, changes and testing of plant. It is applied to total investment and is

developed for each major account as follows:

Maintenance Factor = MC / (APS * (CC/BC))

ME = Maintenance expense

APS = Average plant in service

CC/BC = Current cost/book cost factor

The administration factor includes expenses that cannot be assigned to specific products or services. These expenses are associated with provisioning, power, network administration, plant operations, engineering, and the annual capital costs of land, buildings, furniture, office equipment, motor vehicles and general purpose computers. The administration factor is applied against total investment and is developed as follows:

Administration factor = Administration expense/(Investment * (CC/BC))

The ad valorem tax factor represents taxes levied on the assessed value of plant. It includes property, capital stock and miscellaneous taxes and is applied to total investment. The ad valorem tax factor is developed as follows:

Ad Valorem Tax Factor = Property tax / Plant in Service

The following are the annual cost factors by rate element which are explained above:

Capital Cost Factors:	LIDB Transport Query	LIDB Query SCP	LIDB Query DBAS
Depreciation-Switching Equipment	0.068360	0.068360	0.154710
Depreciation-Buildings	0.025390	0.025390	0.025390
Cost of Money-Switching Equipment	0.058750	0.058750	0.059070
Cost of Money-Buildings	0.088870	0.088870	0.088870
Cost of Money-Internal	0.123200	0.123200	0.116050
Income Tax-Switching Equipment	0.026510	0.026510	0.026130
Income Tax-Buildings	0.039510	0.039510	0.039510
Annual Operating Expenses:			
Central Office Maintenance	0.082450	0.082450	0.082450
Building & Grounds Maintenance	0.011570	0.011570	0.011570
Administration Expense	0.055630	0.055630	0.055630
Ad Valorem Tax	0.008000	0.008000	8.008000

STP Port Termination:

Capital Cost Factors:	ARKANSAS	KANSAS	MISSOURI	OKLAHOMA	TEXAS
Depreciation-Switching Equipment	0.072160	0.072160	0.068360	0.072160	0.068360
Depreciation-Buildings	0.024080	0.025960	0.025390	0.026260	0.025990
Cost of Money-Switching Equipment	0.058300	0.057930	0.058750	0.058070	0.061420
Cost of Money-Buildings	0.087950	0.086790	0.088870	0.086300	0.088660
Cost of Money-Internal	0.123200	0.1273200	0.123200	0.123200	0.123200
Income Tax-Switching Equipment	0.025830	0.024950	0.026510	0.025430	0.022390
Income Tax-Buildings	0.037260	0.037050	0.039510	0.036760	0.031690
Annual Operating Expenses:					
Central Office Maintenance	0.084549	0.073454	0.092797	0.087193	0.060052
Building & Grounds Maintenance	0.015560	0.012114	0.013022	0.015445	0.012613
Administration Expense	0.051225	0.056025	0.062612	0.053411	0.044563
Ad Valorem Tax	0.005700	0.019300	0.008000	0.012100	0.010600

STP Access Mileage

	ARKANSAS	KANSAS	MISSOURI	OKLAHOMA	TEXAS
Annual Cost Factor-Fixed	0.262715	0.253628	0.292641	0.257053	0.253109
Annual Cost Factor Factor-Per Mile	0.228732	0.240566	0.155577	0.252183	0.246753

STP Access Connection

	ARKANSAS	KANSAS	MISSOURI	OKLAHOMA	TEXAS
Annual Cost Factor					
Fixed-0 Miles	0.224410	0.259048	0.269645	0.247747	0.229121
Fixed >0 Miles	0.230074	0.258273	0.273088	0.249265	0.232707
Annual Cost Factor -Per Mile	0.211908	0.259698	0.238905	0.241433	0.239571

IV. CONCLUSION

SWBT has properly documented all aspects of its LIDB tariff, and all costs have been properly accounted for. Thus, the tariff should stand as is.

Respectfully submitted,

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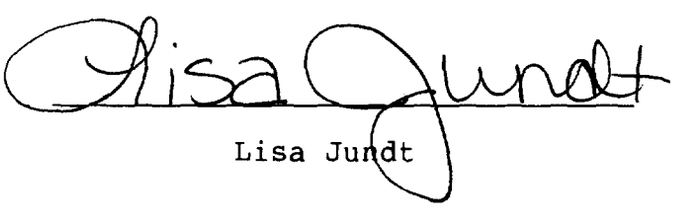
April 21, 1992

CERTIFICATE OF SERVICE

I, Lisa Jundt, hereby certify that the foregoing "Direct Case" in Docket # 92-24 has been served this 21st day of April to the Parties of Record.



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